

**AI 伪造的识别与防范**  
——责任结构、兜底机制与反“真相极权”设计

**Identifying and Containing AI Forgery  
— Responsibility Architecture, Fallback Mechanisms, and the Design Against “Truth Authoritarianism”**

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导论 | 当“真假”开始失效，责任不能一起消失

## Introduction | When Truth Becomes Unstable, Responsibility Must Not Vanish

人工智能正在迅速进入一个阶段：

它不再只是辅助人类表达，而是在规模、速度与逼真度上，开始系统性地超越人类的识别能力。

Artificial intelligence is rapidly entering a new phase.

It no longer merely **assists human expression**, but begins to **systematically surpass human perceptual capacity** in scale, speed, and realism.

这一点本身，并不构成原罪。

AI 是一种强力工具，在大量场景中，它确实提高了效率、降低了门槛、扩展了能力边界。

真正的问题在于——技术的扩展速度，正在明显快于人类社会的责任结构、制度设计与纠错能力的更新速度。

This fact, in itself, is not a moral failing.

AI is a powerful tool: in many contexts it improves efficiency, lowers barriers, and expands human capability.

The real problem is that **the speed of technological expansion is now outpacing the evolution of social responsibility structures, institutional design, and correction mechanisms.**

当“真假”变得越来越难以稳定判断时，社会面临的核心风险，并不是“有人被骗”，而是：一整套以判断、追责、兜底为基础的信任结构，正在发生系统性失灵。

As “truth” becomes increasingly unstable, the core social risk is not simply that people may be deceived,

but that **the entire trust architecture built on judgement, accountability, and fallback responsibility begins to fail systemically.**

在过去的技术时代，伪造是异常事件。

它需要成本、技巧和时间，因此可以被当作偏差来处理。

而在 AI 时代，伪造正在变成一种低成本、可复制、可规模化的常态能力。

In earlier technological eras, forgery was an exception.

It required cost, skill, and time, and could therefore be treated as a deviation.

In the AI era, forgery is becoming a **low-cost, repeatable, and scalable default capability**.

如果仍然把问题理解为“如何更好地区分真假”，

那么几乎所有努力，最终都会滑向两个看似对立、实则同构的方向：

If the problem continues to be framed as how to better distinguish truth from falsehood, most solutions will ultimately slide toward two outcomes that appear opposed but are structurally identical:

一端，是真假泛滥：信息失真无处不在，但无人承担明确责任；

另一端，是真相垄断：判断权集中于少数“验证者”之手，而责任被不断上移、稀释甚至消失。

On one end lies **truth dilution**: misinformation everywhere, but no clear party held responsible.

On the other lies **truth monopoly**: judgement centralized in the hands of a few “verifiers”, while responsibility is pushed upward, diluted, or erased.

这两条路径的终点并无不同：

个体失去判断权，系统失去追责对象。

Both paths converge on the same endpoint:

individuals lose the capacity to judge, and systems lose accountable actors.

因此，本文采取一个不同于主流讨论的切入点：

For this reason, this text adopts a different point of departure from mainstream discussions:

AI 伪造的核心风险，不在于“真假判断失败”，

而在于“责任结构无法承压”。

The core risk of AI forgery is not the failure of truth detection,

but the inability of responsibility structures to bear the load.

本文并不试图消灭伪造——那既不现实，也不必要；

它关注的是：在伪造不可避免的前提下，**如何防止系统性失控，确保每一层都有人必须下场、有人必须兜底。**

This work does not seek to eliminate forgery—such a goal is neither realistic nor necessary.

Instead, it asks: under the condition that forgery is inevitable, **how can systemic collapse be prevented, and how can every layer be forced to take responsibility and provide fallback accountability?**

从个人，到使用者；

从组织，到平台；

从技术提供方，到法律与监管——

**谁做了什么，谁该负责，谁不能退场，**

将成为 AI 时代信任得以维持的关键。

From individuals to users,

from organizations to platforms,  
from technology providers to law and regulation—  
**who does what, who bears responsibility, and who is not allowed to exit,**  
these are the questions upon which trust in the AI era will depend.

第一部分 | 问题总框架：风险不是“真假”，而是“谁负责”

## Part I | The General Framework: The Risk Is Not Truth, but Responsibility

第一章 | 问题重述：AI 时代，真假不稳但责任不能消失

### Chapter 1 | Restating the Problem: In the AI Era, Truth Becomes Unstable, but Responsibility Must Not Disappear

1.1 AI 伪造的不可避免性

#### 1.1 The Inevitability of AI Forgery

在 AI 技术进入规模化应用阶段之后，**伪造不再是偏差，而是结构性结果。**

这并非源于个体道德滑坡，也不是少数恶意行为者的异常选择，而是由三种技术特征共同推动：

Once AI technologies enter large-scale deployment, **forgery ceases to be an anomaly and becomes a structural outcome.**

This shift is not driven by moral decline, nor by the abnormal choices of a few malicious actors, but by three converging technical characteristics:

第一，生成能力的普及化。

生成高质量文本、图像、音频与视频，不再需要专业技能或昂贵设备。

First, **the democratization of generative capability.**

Producing high-quality text, images, audio, and video no longer requires specialized skills or costly equipment.

第二，边际成本的持续趋近于零。

一旦模型存在，复制、变体与规模化传播几乎不再消耗额外资源。

Second, **the marginal cost of production approaching zero.**

Once a model exists, replication, variation, and large-scale dissemination require almost no additional resources.

第三，识别难度与生成能力的结构性失衡。

生成能力的进化速度，正在系统性快于人类感知与社会验证机制的更新速度。

Third, **a structural imbalance between generation and detection.**

The evolution of generative power is systematically outpacing human perception and social verification mechanisms.

在这一组合条件下，寄希望于“通过技术手段彻底识别并消灭伪造”，  
本身就是一种误判。

Under these conditions, the expectation that forgery can be fully detected and eliminated through technical means  
is itself a misjudgement.

伪造不是一个可以被“解决”的问题，  
它是一个需要被管理、被承压、被兜底的常态风险。

Forgery is not a problem to be “solved”;  
it is a **persistent risk that must be managed, absorbed, and backed by responsibility structures.**

1.2 从“真假判断失败”到“责任结构崩塌”

## 1.2 From Failed Truth Judgement to the Collapse of Responsibility Structures

在传统叙事中，伪造带来的主要后果被理解为：

有人被骗了，有人判断错了。

In traditional narratives, the primary consequence of forgery is understood as:

**someone was deceived, someone made a wrong judgement.**

这种理解在低频、高手工成本的伪造时代，尚且成立。

因为错误可以被视为个体失误，损害可以被局部消化。

Such an understanding was acceptable in an era of low-frequency, high-cost forgery, where errors could be treated as individual mistakes and damage could be locally contained.

但在 AI 时代，这一叙事开始失效。

In the AI era, this narrative breaks down.

当伪造变成规模化能力时，

问题不再是“谁判断错了”，

而是：

When forgery becomes a scalable capability,  
the question is no longer “who judged incorrectly”,  
but:

谁设计了允许错误扩散的流程？

谁从放大中获利却未承担放大后果？

当判断失败成为常态，谁被默认兜底？

Who designed processes that allow errors to propagate?

Who profits from amplification without bearing its consequences?

When judgement failure becomes the norm, who is implicitly forced to provide fallback responsibility?

如果这些问题没有答案，

那么所谓的“真假判断失败”，

就会迅速演化为责任结构的整体崩塌。

If these questions have no answers,

then so-called “failures of truth judgement”

quickly evolve into a **system-wide collapse of responsibility structures**.

在责任真空中，信任不会逐渐减弱，

而是会突然断裂。

In a vacuum of responsibility, trust does not erode gradually;

it **breaks abruptly**.

1.3 防范目标的重新定义：

不是消灭伪造，而是防止系统性失控

## 1.3 Redefining the Defensive Goal:

**Not Eliminating Forgery, but Preventing Systemic Loss of Control**

一旦承认 AI 伪造的不可避免性，

防范目标就必须被重新定义。

Once the inevitability of AI forgery is acknowledged,  
the defensive objective must be redefined.

真正可行、也是唯一理性的目标，不是：

让伪造不发生，

而是：

The only feasible and rational goal is not  
**to ensure forgery never occurs**,  
but to ensure that:

伪造无法在无人负责的情况下扩散

判断失败不会自动转化为免责

风险不会被层层下推，最终压到个体身上

Forgery cannot spread without accountable actors

Failed judgement does not automatically translate into immunity

Risk cannot be endlessly pushed downward until it crushes individuals

换言之，防范的核心不是“识别能力”，

而是责任承载能力。

In other words, the core of prevention is not detection capability,  
but responsibility-bearing capacity.

只要责任链仍然完整，

系统就算遭遇伪造冲击，也不会失控；

一旦责任链断裂，

哪怕伪造比例不高，系统也会迅速崩溃。

As long as the responsibility chain remains intact,  
the system can absorb forgery shocks without collapse.

Once that chain breaks,

even a small amount of forgery can trigger rapid failure.

## 第二章 | 双重风险概览：两个极端，同一后果

### Chapter 2 | Dual Risk Overview: Two Extremes, One Outcome

AI 伪造问题的讨论，往往被拉向两个看似对立的方向。

一个强调技术失效带来的混乱，

另一个强调技术治理带来的秩序。

然而，当视角从“真假判断”转向“责任结构”时，这两个方向不再对立，  
而是呈现出一种危险的对称性。

Both dominant responses to AI forgery appear opposed.

One emphasizes chaos caused by technological failure,

the other emphasizes order produced by technological governance.

Yet once the focus shifts from truth detection to responsibility structures,  
these two paths reveal a dangerous symmetry rather than opposition.

它们通向的，并不是不同的未来，

而是同一个系统性终点。

## 2.1 AI 伪造风险：真假泛滥、信任稀释

### 2.1 The Forgery Risk: Truth Dilution and Trust Erosion

第一种风险，是最直观、也最常被讨论的那一类。  
即：AI 伪造能力被广泛滥用，真假难辨，信任逐步瓦解。

The first risk is the most intuitive and most frequently discussed:  
AI-generated forgeries spread widely, truth becomes difficult to verify, and trust gradually erodes.

在这一路径中，问题通常被描述为：

In this trajectory, the problem is typically framed as:

人们无法判断信息是否真实  
媒体与社交平台充斥虚假内容  
个体不断“被骗”，最终选择不再相信任何东西

People cannot determine whether information is real  
Media and platforms become flooded with false content  
Individuals are repeatedly deceived and eventually stop trusting anything

这类分析往往以一句话收尾：  
“**信任崩塌**”。

Such analyses often conclude with a single phrase:  
**“the collapse of trust.”**

但这种表述隐藏了一个更关键的问题——  
信任究竟是如何崩塌的？

Yet this framing conceals a more fundamental issue:  
**how exactly does trust collapse?**

在多数现实场景中，信任并不是因为“出现了假内容”而直接消失的。  
真正致命的是：

In most real-world scenarios, trust does not vanish merely because false content exists.  
What proves fatal is that:

伪造出现后，没有明确责任主体  
受害者无法追责，也无法获得补偿  
错误被当作“时代噪音”而非制度失败

After forgery occurs, no clear responsible actor exists  
Victims cannot seek accountability or remediation  
Errors are treated as “background noise of the era” rather than institutional failure

当风险被正常化、被稀释、被去责任化时，  
信任不是被击碎的，  
而是被慢慢抽空的。

When risk is normalized, diluted, and stripped of responsibility,  
trust is not shattered violently,  
but **quietly hollowed out**.

## 2.2 真相极权风险：判断垄断、责任上移

## 2.2 The Truth-Authoritarian Risk: Judgment Monopoly and Responsibility Drift

与“真假泛滥”相对的，是另一种看似更理性的回应路径：  
强化验证、集中判断、建立权威真相来源。

Opposed to truth dilution is a response that appears more rational:  
**strengthening verification, centralizing judgement, and establishing authoritative truth sources.**

在这一路径中，核心逻辑是：  
The core logic of this path is:

个体判断不可靠  
分布式判断效率低下  
因此需要集中化的验证机构或系统

Individual judgement is unreliable  
Distributed judgement is inefficient  
Therefore centralized verification institutions or systems are required

在表面上，这似乎是对混乱的纠偏。  
但从责任结构的角度看，这条路径隐含着另一种风险。

On the surface, this appears to correct disorder.  
From the perspective of responsibility architecture, however, it introduces another risk.

当判断权被集中时，  
错误并不会消失，只会被重新包装。

When judgement is centralized,  
**errors do not disappear; they are merely repackaged.**

更关键的是，责任开始发生结构性位移：  
More critically, responsibility undergoes structural displacement:

个体被要求服从结论，而非参与判断  
组织与平台可以“遵循权威”作为免责理由  
验证机构逐渐成为事实上的终局裁决者

Individuals are expected to comply with conclusions rather than exercise judgement  
Organizations and platforms can claim “following authority” as immunity  
Verification bodies gradually become de facto final arbiters

一旦“正确性”被垄断，  
责任就会沿着权力结构向上漂移，  
直至变得不可触及。

Once “correctness” is monopolized,  
responsibility drifts upward along power structures  
until it becomes untouchable.

## 2.3 两种风险的共同终点： 个体失去判断权，系统无人负责

### 2.3 The Shared Endpoint: **Individuals Lose Judgement, Systems Lose Accountability**

乍看之下，真假泛滥与真相垄断是两个极端。

一个是“什么都不可信”，  
另一个是“只允许一种可信”。

At first glance, truth dilution and truth monopoly appear to be opposite extremes.  
One claims “nothing can be trusted”,  
the other insists “only one source may be trusted”.

但在责任结构层面，它们指向同一结果。  
At the level of responsibility architecture, they converge on the same outcome.

在真假泛滥中：  
个体被迫独自承担判断风险，却没有追责路径。

In truth dilution:  
individuals are forced to bear judgement risk alone, without recourse.

在真相垄断中：  
个体被剥夺判断权，只能服从结论，同时责任被制度性上移。

In truth monopoly:  
individuals are stripped of judgement, forced into compliance, while responsibility is institutionally elevated.

两者的共同点是：  
What they share is that:

判断失败不再对应明确责任  
错误不再触发纠错机制  
信任无法通过追责被修复

Failed judgement no longer maps to accountable actors  
Errors no longer trigger correction mechanisms  
Trust cannot be restored through accountability

因此，真正需要被防范的，  
不是某一种具体风险，  
而是责任结构在极端压力下被同时掏空的可能性。

Thus, what must truly be prevented  
is not any single specific risk,  
but the possibility that **responsibility structures are hollowed out under extreme pressure from both sides.**

第二部分 | 责任分层：谁必须下场，谁必须兜底

## Part II | Responsibility Layering: Who Must Act, Who Must Provide Fallback

第三章 | 个人层责任：信息接收者的最低义务

### Chapter 3 | Individual-Level Responsibility: The Minimum Duty of Information Recipients

这一部分开始，讨论将刻意远离技术细节。  
不是因为技术不重要，而是因为：把责任问题伪装成技术问题，正是系统性失控的常见前兆。

From this point onward, the discussion deliberately steps away from technical detail.  
Not because technology is unimportant, but because disguising responsibility problems as technical problems is a common precursor to systemic failure.

### 3.1 不具备技术能力 ≠ 无责任

#### 3.1 Lack of Technical Skill ≠ Lack of Responsibility

在 AI 伪造讨论中，一种极具诱惑力、也极具破坏性的论调反复出现：  
“普通人不懂技术，所以不该承担责任。”

In discussions of AI forgery, a tempting yet highly destructive argument recurs:  
**“Ordinary people lack technical expertise, therefore they should bear no responsibility.”**

这在直觉上看似合理，  
在责任结构上却是致命的。

Intuitively persuasive,  
but structurally fatal.

责任从来不是以“是否懂技术”为前提分配的。  
在任何成熟社会中，责任的最低门槛，始终与行为后果而非技术理解挂钩。

Responsibility has never been allocated based on technical literacy.  
In any mature society, minimum responsibility is tied to **consequences of action, not depth of technical understanding.**

一个人不需要理解金融系统的运作原理，  
才被要求对转账行为负责。

One does not need to understand the financial system  
to be held responsible for making a transfer.

一个人不需要掌握传播学，  
才被要求对公开传播的内容承担后果。

One does not need to master communication theory  
to be accountable for what they publicly disseminate.

AI 的出现，并没有改变这一基本逻辑。  
改变的，只是误用成本下降了，而非责任应当消失。

AI does not alter this basic logic.  
What changes is the cost of misuse, not the existence of responsibility.

### 3.2 个人必须承担责任的高风险行为

#### 3.2 High-Risk Actions That Necessarily Carry Individual Responsibility

在 AI 伪造环境中，并非所有信息接触行为都需要被严格约束。  
但存在一些高风险行为，其后果具有不可逆性，  
因此必须被明确标注为个人责任边界内的行为。

In an AI-forgery environment, not all information interactions require strict constraint.  
However, certain high-risk actions carry irreversible consequences  
and must be explicitly marked as falling within individual responsibility boundaries.

以下三类行为，无论是否使用 AI 辅助，  
都不能被“技术不懂”作为免责理由：

The following three categories of actions, whether AI-assisted or not,  
cannot be exempted by claims of technical ignorance:

## 一、转账行为

金钱流动一旦发生，后果往往不可完全逆转。  
因此，确认义务不可外包。

### 1. Transfers

Once money moves, consequences are often irreversible.  
Therefore, the duty of confirmation cannot be outsourced.

## 二、传播行为

公开传播具有放大效应。  
一旦进入传播链，个体即成为风险放大器的一环。

### 2. Dissemination

Public dissemination has amplification effects.  
Once content enters the distribution chain, the individual becomes part of the risk amplifier.

## 三、身份确认行为

涉及身份、授权或代表关系的确认，  
一旦错误，将直接破坏责任链。

### 3. Identity Confirmation

Confirming identity, authority, or representation,  
if done incorrectly, directly fractures responsibility chains.

在这些行为上，  
“我只是相信了”“我只是转发了”“我只是照着做了”，  
都不构成责任免疫。

In these actions,  
“I merely trusted”, “I just forwarded it”, or “I followed instructions”  
do not constitute immunity.

#### 3.3 个人层兜底边界：

行为克制，而非技术识别

#### 3.3 The Individual Fallback Boundary:

**Behavioral Restraint, Not Technical Detection**

明确个人责任，并不意味着要求每个人都具备专业级别的伪造识别能力。  
那既不现实，也不公平。

Clarifying individual responsibility does not mean demanding professional-level forgery detection skills from everyone.  
Such expectations are neither realistic nor fair.

个人层的兜底边界，应当被限定在一个更低、但更可执行的位置：  
**行为克制。**

The individual fallback boundary should be set at a lower, but more enforceable level:  
**behavioral restraint.**

这意味着：

This means:

在高风险行为前，延迟决策  
在不可逆行为前，增加确认步骤

在责任不清的情况下，选择不行动

Delaying decisions before high-risk actions  
Adding confirmation steps before irreversible actions  
Choosing inaction when responsibility is unclear

个人不需要证明“这一定是真的”，  
只需要避免在无法承担后果的情况下推动后果发生。

Individuals do not need to prove something is “certainly true”;  
they only need to avoid **causing consequences they cannot bear.**

这不是技术要求，  
而是一条责任底线。

This is not a technical requirement,  
but a **baseline of responsibility.**

#### 第四章 | 使用者责任：AI 工具操作者不能隐身

#### Chapter 4 | User Responsibility: AI Tool Operators Cannot Disappear

如果说个人层责任讨论的是\*\*“作为信息接收者的最低义务”\*\*，  
那么使用者责任讨论的，则是另一条更危险、也更容易被滥用的路径：  
“借助 AI 行为实现责任隐身。”

If individual-level responsibility concerns the **minimum duty of information recipients**,  
then user responsibility addresses a more dangerous and more easily abused pathway:  
**using AI-assisted action as a means of responsibility evasion.**

##### 4.1 “只是使用 AI”不构成免责

##### 4.1 “I Only Used AI” Is Not a Defense

在 AI 广泛可用之后，一种新的免责叙事迅速扩散：  
“内容不是我写的，是 AI 生成的。”

As AI becomes widely accessible, a new immunity narrative spreads rapidly:  
**“I didn’t create the content; the AI did.”**

这种表述在语言上看似合理，  
在责任结构上却是错误的。

Linguistically plausible,  
but structurally false.

使用工具，从来不是免责条件。  
无论是计算器、自动化系统，还是 AI，  
行为的发起者，始终是责任的第一承载者。

Using a tool has never constituted immunity.  
Whether calculators, automation systems, or AI,  
**the initiator of the action remains the primary bearer of responsibility.**

如果“使用 AI”可以自动消解责任，  
那么任何高风险行为，都可以通过技术中介被合法外包。

If “using AI” automatically dissolved responsibility,  
any high-risk action could be legitimately outsourced to a technical intermediary.

这将直接导致责任结构的系统性塌陷。

This would directly cause a systemic collapse of responsibility structures.

#### 4.2 使用者对输出内容的直接责任

##### **4.2 Direct Responsibility for AI Outputs**

在责任结构中，AI 输出并不是“自然结果”，  
而是被选择、被采纳、被发布的行为结果。

Within responsibility architectures, AI outputs are not “natural outcomes”,  
but selected, adopted, and published actions.

从责任角度看，关键问题从来不是：  
“AI 能不能生成这些内容”，  
而是：  
**“谁决定让这些内容进入现实世界？”**

From a responsibility standpoint, the critical question is never:  
“Can AI generate this content?”,  
but rather:  
**“Who decided to let this content enter the real world?”**

一旦使用者选择：

发布  
转发  
提交  
作为依据采取行动  
责任即被激活。

Once a user chooses to:

Publish  
Forward  
Submit  
Act upon  
responsibility is activated.

AI 不承担责任，  
因为 AI 不具备承担责任的能力。  
**责任只能落在人类节点上。**

AI bears no responsibility,  
because it lacks the capacity to do so.  
**Responsibility can only reside in human nodes.**

#### 4.3 高风险使用场景的责任升级

##### **4.3 Responsibility Escalation in High-Risk Use Cases**

并非所有 AI 使用行为都具有同等风险。  
但在某些场景中，  
使用者责任必须被明确升级。

Not all AI use carries equal risk.

However, in certain contexts,  
**user responsibility must be explicitly escalated.**

典型的高风险场景包括：

High-risk contexts include, but are not limited to:

涉及金融、交易或资源配置决策  
涉及公共舆论、政治表达或社会动员  
涉及身份、授权、法律或医疗判断

Financial, transactional, or resource allocation decisions  
Public opinion shaping, political expression, or social mobilization  
Identity, authorization, legal, or medical judgement

在这些场景中，  
“AI 生成”“模型建议”“系统输出”，  
只能作为**辅助信息**，  
而不能作为**责任转移工具**。

In such contexts,  
“AI-generated”, “model-suggested”, or “system output”  
may only serve as **auxiliary information**,  
never as **responsibility transfer mechanisms**.

**4.4 典型失责路径：**  
**模糊署名 · 外包判断 · 切断追溯**  
**4.4 Typical Failure Paths:**  
**Ambiguous Attribution · Outsourced Judgement · Broken Traceability**

在现实系统中，使用者失责往往并非源于恶意，  
而是通过一系列看似合理、实则危险的结构性操作完成的。

In real systems, user failure often arises not from malice,  
but through a series of seemingly reasonable yet structurally hazardous moves.

最常见的三条路径是：  
The three most common paths are:

**第一，模糊署名**  
通过弱化“谁负责输出”的明确性，  
为未来的责任回避预留空间。

**1. Ambiguous Attribution**  
Diluting clarity around authorship  
to reserve space for future responsibility avoidance.

**第二，外包判断**  
将关键判断完全交由 AI 或外部系统，  
自身仅保留执行角色。

**2. Outsourced Judgement**  
Delegating critical judgement entirely to AI or external systems,  
while retaining only an execution role.

**第三，切断追溯**

通过删除记录、绕过日志、使用不可追溯通道，使事后责任回溯变得不可能。

### 3. Broken Traceability

Deleting records, bypassing logs, or using untraceable channels to make post-event accountability impossible.

这三条路径的共同点在于：

它们并不直接制造错误，而是系统性地消解责任。

What these paths share is that

**they do not directly create errors; they systematically dissolve responsibility.**

## 第五章 | 组织层责任：流程必须挡住伪造

### Chapter 5 | Organizational Responsibility: Processes Must Stop Forgery

如果说前一章讨论的是个体如何不能借助 AI 隐身，

那么这一章讨论的，是组织如何不能把风险下推给个体。

If the previous chapter addressed how **individuals cannot use AI to disappear**,

this chapter addresses how **organizations cannot push risk downward onto individuals**.

组织之所以被赋予更高层级的责任，

不是因为其道德更高尚，

而是因为其掌握着流程、权限与资源配置权。

Organizations are assigned higher responsibility not because of moral superiority, but because they **control processes, authority, and resource allocation**.

#### 5.1 组织不能把风险压给个体

##### 5.1 Organizations Cannot Offload Risk Onto Individuals

在 AI 伪造环境中，一种常见的责任转移策略是：

将“判断义务”形式上留给个体，而实质上剥夺其判断条件。

In AI-forgery environments, a common responsibility-shifting strategy is:

**formally assigning judgement to individuals while materially depriving them of the conditions to judge.**

典型表现包括：

Typical manifestations include:

流程复杂但责任签字集中在基层

系统输出被默认正确，却要求人工背书

决策节奏被压缩，却不允许延迟确认

Complex processes with responsibility signatures concentrated at the lowest level

System outputs treated as default-correct while requiring human endorsement

Decision timelines compressed while forbidding verification delays

在这种结构下，

个体名义上“负责”，

但实际上只是风险缓冲垫。

Under such structures,

individuals are nominally “responsible”，

but functionally act as **risk shock absorbers**.

这不是分工，  
而是结构性推责。

This is not division of labor;  
it is structural responsibility dumping.

## 5.2 组织必须建立的不可伪造节点

### 5.2 Non-Forgable Nodes Organizations Must Establish

组织层责任的核心，不在于“提高员工识别能力”，  
而在于在流程中设置不可被轻易伪造或绕过的关键节点。

The core of organizational responsibility lies not in “improving employee detection skills”,  
but in **embedding critical nodes in workflows that cannot be easily forged or bypassed**.

这些节点并非用于判断真假本身，  
而是用于锚定责任。

These nodes do not exist to judge truth itself,  
but to **anchor accountability**.

至少包括四类：

At minimum, they include four categories:

#### 一、身份节点

明确“谁在以谁的身份行动”。

##### 1. Identity Nodes

Clearly defining who is acting, and in what capacity.

#### 二、授权节点

明确“谁有权发起这一行为”。

##### 2. Authorization Nodes

Clarifying who is authorized to initiate an action.

#### 三、发布节点

明确“是谁决定让信息或指令进入公共或执行层”。

##### 3. Release Nodes

Identifying who decided to let information or commands enter public or execution space.

#### 四、资金节点

明确“谁批准了不可逆资源流动”。

##### 4. Financial Nodes

Defining who approved irreversible resource transfers.

这些节点的关键要求不是“防伪百分之百”，

而是：

**任何节点一旦被触发，责任必须被准确锁定。**

The key requirement is not “perfect forgery prevention”,  
but that **once any node is triggered, responsibility must be precisely bound**.

## 5.3 流程失效的连带责任

### **5.3 Joint Liability for Process Failure**

当组织流程被设计为“形式合规、实质失效”时，  
责任不应只落在最后一个执行者身上。

When organizational processes are designed to be “formally compliant but substantively ineffective”, responsibility must not fall solely on the final executor.

在 AI 伪造背景下，  
流程失效往往具有以下特征：

In AI-forgery contexts, process failure often exhibits:

多人参与，但无人能说清责任边界  
规则存在，但在高压或紧急情况下被系统性绕过  
事后追责时，只能找到“操作员”，找不到“设计者”

Multiple participants, but no clear responsibility boundaries  
Rules exist, but are systematically bypassed under pressure or urgency  
Post-incident accountability finds only “operators”, not “designers”

在这些情况下，  
责任应当沿流程设计链条向上回溯，  
而非向下集中。

In such cases,  
responsibility must be traced **upward along the process design chain, not concentrated downward.**

### **5.4 培训不是免责条款**

#### **5.4 Training Is Not an Immunity Clause**

组织在面对 AI 风险时，  
最常使用、也最容易被滥用的防御手段之一，是“培训”。

One of the most commonly used—and most easily abused—organizational defenses against AI risk is “training”.

培训本身并非无用。  
但培训不能替代流程设计，  
更不能作为责任转移的凭证。

Training itself is not useless.  
But training cannot replace process design,  
nor serve as evidence of responsibility transfer.

如果一个流程在结构上允许伪造通过，  
那么再多的培训，也只是提高发现问题的概率，  
而不是阻断问题的能力。

If a process structurally allows forgery to pass,  
training merely increases the probability of noticing issues,  
not the ability to block them.

发现 ≠ 兜底。  
**Detection ≠ fallback responsibility.**

## 第六章 | 平台责任：放大器必须承担放大后果

### Chapter 6 | Platform Responsibility: Amplifiers Must Bear Amplified Consequences

在 AI 伪造问题中，平台往往试图把自己描述为中立通道：  
信息不是我生产的，  
判断不是我做的，  
后果不该由我承担。

In discussions of AI forgery, platforms often present themselves as **neutral conduits**:  
they did not produce the content,  
they did not judge its truth,  
therefore consequences should not be theirs to bear.

这种表述，在责任结构上是不可成立的。  
This framing is structurally untenable.

#### 6.1 平台不是中立管道

##### 6.1 Platforms Are Not Neutral Pipes

平台之所以成为风险核心节点，  
并不是因为它们“存在”，  
而是因为它们选择性地放大。

Platforms become central risk nodes not because they exist,  
but because they **selectively amplify**.

排序、推荐、推送、热度机制——  
这些都不是被动承载，  
而是主动分配注意力与影响力的行为。

Ranking, recommendation, push notifications, virality metrics—  
these are not passive hosting mechanisms,  
but **active allocations of attention and influence**.

一旦平台介入“谁被看见、被听见、被传播”，  
它就已经进入责任结构。

The moment a platform intervenes in who is seen, heard, and spread,  
it enters the responsibility architecture.

#### 6.2 算法放大即责任放大

##### 6.2 Algorithmic Amplification Equals Responsibility Amplification

平台最常见的辩护是：  
“这是算法自动推荐的。”

A platform's most common defense is:  
**“This was recommended automatically by an algorithm.”**

但算法不是自然现象，  
而是平台设计、部署并持续优化的工具。

Algorithms are not natural phenomena;  
they are tools designed, deployed, and continuously optimized by platforms.

如果一个系统被设计为：

优先放大情绪性、冲突性、极端性内容  
对真实性与责任链缺乏约束  
对纠错与撤回反应迟缓

那么平台就必须对放大后的社会后果承担责任。

If a system is designed to:

Prioritize emotional, conflict-driven, or extreme content  
Lack constraints on authenticity and responsibility chains  
Respond slowly to correction or retraction

**then the platform must bear responsibility for the social consequences of amplification.**

放大不是中性行为。

放大是风险乘数。

Amplification is not neutral.

Amplification is a risk multiplier.

### 6.3 平台最低兜底义务

#### 6.3 Minimum Fallback Obligations of Platforms

要求平台承担责任，

并不意味着要求其“判断一切真假”。

那既不现实，也会滑向真相垄断。

Holding platforms responsible does not mean demanding they judge all truth.  
Such expectations are neither realistic nor desirable.

平台的最低兜底义务，应当集中在三个方面：

Platform minimum fallback obligations should focus on three areas:

##### 一、可追溯

平台必须保留足以支持责任回溯的记录，

并在合法条件下配合追责。

##### 1. Traceability

Platforms must retain records sufficient for accountability tracing and cooperate with lawful accountability processes.

##### 二、可申诉

受影响者必须有清晰、可行的申诉路径，

而不是面对不透明的黑箱裁决。

##### 2. Appealability

Affected parties must have clear, workable appeal channels, not opaque black-box decisions.

##### 三、可下架

在明确风险或损害出现后，

平台必须具备快速、可执行的下架与止损能力。

##### 3. Takedown Capability

When clear risk or harm emerges,  
platforms must be able to act quickly to remove content and limit damage.

这些义务针对的不是“真假”，  
而是风险控制与责任承载。

These obligations do not target “truth”,  
but **risk control and responsibility bearing**.

#### 6.4 平台推责的结构性风险

#### 6.4 Structural Risks of Platform Responsibility Evasion

当平台系统性地回避责任时，  
风险并不会消失，  
而是被重新分配。

When platforms systematically evade responsibility,  
risk does not disappear;  
it is redistributed.

常见结果包括：

Common outcomes include:

个体被迫承担本不该承担的系统性风险  
组织被迫建立“平台外补丁机制”  
国家被迫以更强力、更粗糙的方式介入

Individuals bearing systemic risks they should never carry  
Organizations building ad hoc external patch mechanisms  
States intervening with stronger, blunter instruments

最终，平台并不会因为“中立”而免责，  
反而会成为失控链条中的关键放大器。

Ultimately, platforms do not escape liability through “neutrality”;  
they become critical amplifiers in loss-of-control chains.

### 第七章 | 技术提供方责任：能力越强，兜底越重

### Chapter 7 | Responsibility of Technology Providers: Greater Capability, Heavier Fallback

在责任链中，技术提供方往往处在一个微妙位置。  
他们既不是最终使用者，  
也不是直接执行者，  
却掌握着能力的源头。

In the responsibility chain, technology providers occupy a delicate position.  
They are neither end users  
nor direct executors,  
yet they control the **source of capability**.

正是这一点，使“技术中立”成为最常被滥用、也最危险的责任叙事之一。

It is precisely this position that makes “technological neutrality” one of the most abused—and most dangerous—responsibility narratives.

## 7.1 “通用技术”不是责任免疫

### 7.1 “General-Purpose Technology” Is Not Responsibility Immunity

技术提供方最常见的表述是：

“这是通用技术，如何使用不由我们决定。”

The most common claim made by technology providers is:

“This is general-purpose technology; its use is not our decision.”

这句话在描述能力边界时或许成立，  
但在责任结构中并不构成免责。

This statement may describe capability scope,  
but it does not constitute immunity within responsibility architectures.

历史上，几乎所有高影响力技术，  
都曾被冠以“通用”的名义。  
而“通用”，从来不等于“无责任”。

Historically, nearly all high-impact technologies  
have been labeled “general-purpose”.  
Yet “general-purpose” has never meant “responsibility-free”.

当一种技术：

明显降低高风险行为门槛  
显著扩大错误或滥用的传播半径  
改变原有责任分配的可执行性  
它就已经进入社会责任领域。

When a technology:

Dramatically lowers the threshold for high-risk actions  
Significantly expands the radius of error or misuse  
Alters the executability of existing responsibility allocation  
it has entered the domain of social responsibility.

## 7.2 技术方的最低责任清单

### 7.2 The Minimum Responsibility Set for Technology Providers

要求技术提供方承担责任，  
并不意味着要求其对所有下游行为负责。  
那既不现实，也不合理。

Holding technology providers responsible  
does not mean holding them liable for every downstream action.  
Such expectations are neither realistic nor fair.

但至少存在一条最低责任清单，  
其目标不是“控制使用”，  
而是避免系统性失控。

However, there exists a **minimum responsibility set**,  
aimed not at “controlling usage”,  
but at **preventing systemic loss of control**.

至少包括：

At minimum, it includes:

风险已知性披露：

对已明确的高风险能力与误用场景，不得刻意模糊或回避。

Known-Risk Disclosure:

Clearly identified high-risk capabilities and misuse scenarios must not be obscured or avoided.

能力分级与限制接口：

不同风险等级的能力，应当具备不同的获取条件与调用边界。

Capability Tiering and Access Boundaries:

Capabilities of different risk levels should have differentiated access conditions and interfaces.

日志与追溯支持：

系统架构不应在结构层面上预先排除在适当的法律与技术约束条件下进行责任重建的可能性。

Logging and Traceability Support:

System architectures should not structurally preclude accountability reconstruction under appropriate legal and technical constraints.

滥用反馈与修正通道：

当明确滥用模式出现时，应具备快速调整与止损能力。

Abuse Feedback and Correction Channels:

When clear misuse patterns emerge, rapid adjustment and mitigation must be possible.

这些责任并不要求技术提供方成为裁判，  
但要求其不做责任破坏者。

These responsibilities do not require providers to act as judges,  
but they do require them **not to become responsibility eroders**.

### 7.3 明知高风险仍放任的责任升级

#### 7.3 Responsibility Escalation Under Knowing High Risk

责任的关键分水岭，不在于“是否被滥用”，  
而在于：

是否在明知高风险的情况下选择放任。

The critical threshold for responsibility  
is not whether misuse occurs,  
but whether **high risk is knowingly tolerated**.

当技术提供方已经清楚：

某类能力被稳定用于高风险伪造  
现有防护或限制明显失效  
下游责任结构已被压垮

却仍选择：

不调整能力边界  
不提供风险缓释接口

不与监管或组织协作

责任就会发生结构性升级。

When providers clearly know that:

Certain capabilities are consistently used for high-risk forgery  
Existing safeguards are demonstrably ineffective  
Downstream responsibility structures are already overloaded

yet choose to:

Avoid adjusting capability boundaries  
Withhold mitigation interfaces  
Refuse cooperation with regulators or organizations

responsibility escalates **structurally**.

这并不是道德指控，  
而是风险管理的基本逻辑。

This is not a moral accusation,  
but a basic principle of risk management.

#### 7.4 技术责任的边界在哪里

#### 7.4 Where the Boundary of Technical Responsibility Lies

技术提供方的责任，  
不能无限扩张。  
否则，技术发展将被事实性冻结。

Technical responsibility cannot expand infinitely;  
otherwise, technological development would be effectively frozen.

因此，责任边界必须被明确：  
Therefore, responsibility boundaries must be defined:

技术方不对具体内容真假负责  
不对个体使用动机负责  
不对组织执行决策负责

**Providers are not responsible for specific content truthfulness**  
**Not responsible for individual user intent**  
**Not responsible for organizational execution decisions**

但技术方必须对以下事项负责：  
But providers must be responsible for:

是否明知能力外溢风险  
是否主动破坏追责可能性  
是否在系统性失控前拒绝调整

**Whether capability spillover risks are known**  
**Whether accountability tracing is actively undermined**  
**Whether adjustments are refused before systemic failure**

责任的本质，不是“替别人负责”，

而是不制造不可负责的系统。

Responsibility is not about “answering for others”,  
but about not creating systems that make responsibility impossible.

## 第八章 | 监管与法律责任：最后兜底者

## Chapter 8 | Regulatory and Legal Responsibility: The Final Fallback

在前述所有责任层级中，  
监管与法律并不是“最高权力者”，  
而是**最后兜底者**。

Among all responsibility layers discussed so far,  
regulation and law are not the “highest authority”,  
but the **final fallback**.

它们存在的目的，不是替代其他层级履职，  
而是在其他层级失效时，  
防止系统彻底坠毁。

Their purpose is not to replace other layers’ duties,  
but to **prevent total system collapse when those layers fail**.

### 8.1 法律不负责识别真假，但负责界定责任

#### 8.1 Law Does Not Judge Truth, It Defines Responsibility

在 AI 伪造语境下，对法律最危险的期待之一是：  
“法律应该告诉我们什么是真的。”

One of the most dangerous expectations placed on law in the AI forgery context is:  
**“The law should tell us what is true.”**

这不仅不可行，  
而且会直接推动真相极权的形成。

This is not only impractical,  
but actively accelerates truth authoritarianism.

法律系统的核心职能，从来不是事实裁决本身，  
而是：  
The core function of legal systems has never been truth adjudication itself,  
but:

谁在什么条件下承担什么责任  
当风险发生时，责任如何分配  
当责任被逃避时，如何强制回溯

Who bears responsibility under what conditions  
How responsibility is allocated when risk materializes  
How accountability is enforced when evaded

在 AI 时代，  
法律不需要回答“内容是否为 AI 伪造”，  
它需要回答的是：

In the AI era,

law does not need to answer “whether content is AI-forged”,  
but rather:

在这一链条中，谁不能免责  
哪些行为构成不可接受的责任转移  
哪些设计本身就是系统性风险

Who in the chain cannot claim immunity  
Which behaviors constitute unacceptable responsibility transfer  
Which designs are themselves systemic risks

## 8.2 AI 时代证据与责任标准的变化

### 8.2 Evidence and Responsibility Standards in the AI Era

AI 伪造并不会让证据“消失”，  
但会让传统证据的可信假设失效。

AI forgery does not make evidence disappear,  
but it invalidates traditional assumptions of trustworthiness.

在过去：

In the past:

影像往往被视为高可信证据  
书面材料默认由人类撰写  
直接证据优于间接证据

Visual media was treated as highly reliable  
Written material was assumed to be human-authored  
Direct evidence was privileged over indirect evidence

在 AI 时代，这些假设都必须被重置。

In the AI era, these assumptions must be reset.

这并不意味着法律需要变成技术鉴定机构，  
而是意味着：

This does not require law to become a technical verification body,  
but it does require that:

责任证据优先于内容真实性证据  
流程记录优先于单一结果  
行为链条优先于孤立素材

**Responsibility evidence takes precedence over content authenticity**  
**Process records outweigh isolated outputs**  
**Behavioral chains matter more than standalone artifacts**

当“真假”不再稳定时，  
谁做了什么，  
反而变得更可证明、也更重要。

When truth becomes unstable,  
**who did what**  
often becomes more provable—and more decisive.

## 8.3 监管缺位本身即系统风险

### 8.3 Regulatory Absence Is Itself a Systemic Risk

在 AI 伪造问题上，  
监管的最大失败，  
不是“监管过严”，  
而是长期缺位。

In the context of AI forgery,  
the greatest regulatory failure  
is not overregulation,  
but **prolonged absence**.

当监管缺位时，  
责任并不会自然分配，  
而是会沿着权力与资源结构漂移。

When regulation is absent,  
responsibility does not distribute itself naturally;  
it drifts along lines of power and resources.

常见后果包括：  
Common consequences include:

个体被迫承担超出能力的风险  
平台与组织形成事实性免责区  
国家最终以高强度、低精度方式介入

Individuals bearing risks far beyond their capacity  
Platforms and organizations forming de facto immunity zones  
States intervening later with high-force, low-precision measures

这种“先放任、后重锤”的治理路径，  
并不是自由，  
而是延迟失控。

This “laissez-faire followed by crackdown” pattern  
is not freedom,  
but delayed loss of control.

真正成熟的监管，不是事后裁决一切，  
而是在系统尚可调整时，  
明确哪些责任不能被设计性逃避。

Mature regulation does not adjudicate everything after the fact;  
it intervenes while systems are still adjustable,  
to define which responsibilities cannot be structurally evaded.

第三部分 | 真相治理风险：防范“真相极权”

## Part III | Truth Governance Risks: Guarding Against “Truth Authoritarianism”

第九章 | 新问题界定：当“验证”本身成为权力

### Chapter 9 | Redefining the Problem: When Verification Itself Becomes Power

在前两部分中，本文反复强调：  
AI 时代的核心风险，不在于真假难辨，

而在于责任结构是否还能承压。

In the previous sections, this text repeatedly argued that  
the core risk of the AI era lies not in unstable truth,  
but in whether responsibility structures can still bear the load.

然而，当社会意识到“真假判断”已经不再可靠时，  
一个新的、同样危险的问题随之出现。

Yet once society recognizes that truth judgement is no longer reliable,  
a new—and equally dangerous—problem emerges.

那就是：  
谁来验证？

That question is:  
**who verifies?**

### 9.1 反伪造为何会走向真相垄断

#### 9.1 Why Anti-Forgery Efforts Drift Toward Truth Monopoly

在伪造能力大规模扩散之后，  
要求“建立权威验证机制”的呼声，几乎是必然的。

Once forgery capabilities spread at scale,  
calls for “authoritative verification mechanisms” are almost inevitable.

其逻辑路径通常如下：

The logic usually proceeds as follows:

个体判断能力不足  
分布式判断效率低、成本高  
因此需要集中化验证节点

Individual judgement is insufficient  
Distributed judgement is inefficient and costly  
Therefore centralized verification nodes are required

这一路径在工程上看似合理，  
在治理上却极具风险。

This path may seem reasonable from an engineering perspective,  
but it is highly dangerous from a governance standpoint.

因为一旦验证被集中，  
验证结果就会从“参考信息”变成“行为许可”。

Once verification is centralized,  
**its output shifts from reference information to behavioral authorization.**

从这一刻起，  
验证不再只是工具，  
而开始演化为权力接口。

From that moment,  
verification ceases to be a tool

and begins to function as a **power interface**.

## 9.2 从“辅助判断”到“终局裁决”的滑坡

### 9.2 The Slide from Decision Support to Final Arbitration

几乎所有真相极权的形成，  
都不是通过一次明确的制度宣布完成的，  
而是通过功能边界的连续滑移。

Almost all forms of truth authoritarianism  
are not established through a single explicit decree,  
but through **continuous boundary drift**.

最初，验证系统被设计为：

Initially, verification systems are designed to:

提供概率性判断  
辅助个体或组织决策  
标注不确定性与风险等级

Provide probabilistic assessments  
Support individual or organizational decisions  
Annotate uncertainty and risk levels

随后，在效率、合规与风险压力之下，它们逐步被要求：

Under pressure for efficiency, compliance, and risk reduction, they are gradually required to:

给出明确结论  
减少人工判断  
对“错误选择”进行约束

Deliver definitive conclusions  
Minimize human judgement  
Constrain “incorrect choices”

最终，验证系统被默认视为：

Eventually, verification systems are treated as:

决策前置条件  
合法性来源  
风险免责凭证

Preconditions for action  
Sources of legitimacy  
Instruments of immunity

在这一过程中，  
判断权被持续抽离个体，  
而责任却并未随之重新落地。

Throughout this process,  
judgement is continuously extracted from individuals,  
while responsibility is never properly re-anchored.

## 9.3 真相极权的基本结构特征

### 9.3 Structural Characteristics of Truth Authoritarianism

所谓“真相极权”，  
并不意味着某个系统“总是错误”，  
而是意味着：

What is meant by “truth authoritarianism”  
is not that a system is “always wrong”,  
but that:

判断权高度集中  
质疑被结构性抑制  
责任沿权力路径上移并消失

Judgement is highly centralized  
Dissent is structurally suppressed  
Responsibility drifts upward and disappears

其最危险之处在于：  
即便结论大多正确，系统仍然不可被信任。

Its most dangerous aspect is that  
even if its conclusions are mostly correct, the system remains untrustworthy.

因为一旦错误发生：  
When errors occur:

个体无法拒绝  
组织无法纠错  
权威无法被问责

Individuals cannot refuse  
Organizations cannot correct  
Authorities cannot be held accountable

真相极权并不是“真相的胜利”，  
而是责任的消亡。

Truth authoritarianism is not the triumph of truth,  
but **the extinction of responsibility**.

## 第十章 | 真相验证机构的必要性与风险 Chapter 10 | The Necessity and Risks of Truth Verification Institutions

否认真相验证机构的存在必要性，并不能让它们消失。  
在 AI 伪造成为常态能力的条件下，  
社会必然会生成某种形式的验证节点。

Denying the necessity of truth verification institutions does not make them disappear.  
Under conditions where AI forgery becomes a default capability,  
**society will inevitably generate some form of verification nodes.**

真正的问题不是：  
要不要验证机构，  
而是：  
验证机构被设计成什么样、被允许做什么、不能做什么。

The real question is not

**whether verification institutions should exist,  
but how they are designed, what they are allowed to do, and what they must not do.**

### 10.1 为什么社会需要验证机构

#### 10.1 Why Society Needs Verification Institutions

在高度伪造环境中，完全依赖个体判断是不现实的。

这不是对个体能力的贬低，

而是对规模效应与认知负荷的承认。

In high-forgery environments, relying solely on individual judgement is unrealistic.  
This is not a dismissal of individual capability,  
but an acknowledgment of scale effects and cognitive limits.

验证机构在理想状态下，承担三种功能：

In their ideal form, verification institutions serve three functions:

降低判断成本：

为个体与组织提供初步筛查与风险提示。

Lower Judgement Cost:

Providing preliminary screening and risk signaling.

汇聚专业能力：

将分散的技术、法律与流程知识集中使用。

Aggregate Expertise:

Centralizing technical, legal, and procedural knowledge.

提高纠错速度：

在大规模错误扩散前，快速标记并干预。

Increase Correction Speed:

Flagging and intervening before large-scale error propagation.

在这些功能边界内，

验证机构是社会减震器，

而非统治工具。

Within these boundaries,

verification institutions act as social shock absorbers,

not instruments of domination.

### 10.2 验证机构的三种角色

#### 10.2 Three Roles Verification Institutions Can Assume

验证机构的风险，并不来自其存在，

而来自其角色漂移。

The risk of verification institutions does not stem from their existence,  
but from role drift.

在现实运作中，验证机构往往在三种角色之间摆动：

In practice, verification institutions oscillate among three roles:

**第一种：技术支持者**

提供分析工具、概率判断与不确定性说明，

不直接给出行动指令。

#### 1. Technical Supporter

Providing analytical tools, probabilistic assessments, and uncertainty disclosures without issuing action commands.

这是风险最低、也是最健康的角色。  
This is the lowest-risk and healthiest role.

### 第二种：权威裁决者

其结论被视为“正确答案”，  
被组织与平台用作决策依据。

### 2. Authoritative Arbiter

Whose conclusions are treated as “correct answers”  
and used by organizations and platforms as decision grounds.

这是风险开始显现的阶段。  
This is where risk begins to emerge.

### 第三种：话语门禁者

不仅判断真假，  
还决定哪些内容可以被传播、质疑或讨论。

### 3. Discourse Gatekeeper

Determining not only truthfulness,  
but what may be disseminated, questioned, or discussed.

这是通向真相极权的临界状态。  
This is the threshold of truth authoritarianism.

### 10.3 风险转折点：当质疑权被视为风险本身

#### 10.3 The Critical Turning Point: When the Right to Question Is Treated as a Risk

真相治理最危险的信号，  
并不是验证机构“出错”，  
而是：

The most dangerous signal in truth governance  
is not that verification institutions make mistakes,  
but that:

对验证结果的质疑被视为“不稳定因素”  
讨论被等同于“制造风险”  
不服从被重新定义为“危害公共秩序”

Questioning verification outcomes is labeled “destabilizing”  
Discussion is equated with “risk generation”  
Non-compliance is redefined as “threats to public order”

一旦出现这种转折，  
验证机构就不再是风险控制工具，  
而成为风险源头。

Once this turning point is crossed,  
verification institutions cease to control risk  
and become **sources of risk themselves**.

在这一阶段，

问题已经不再是“验证是否准确”，  
而是：

At this stage,  
the issue is no longer “whether verification is accurate”,  
but:

谁能质疑？  
如何质疑？  
质疑是否仍然被视为系统自我修复的一部分？

Who may question?  
How may questioning occur?  
Is questioning still treated as part of systemic self-correction?

如果这些问题没有清晰答案，  
那么所谓的“真相治理”，  
已经开始侵蚀社会的基本纠错能力。

If these questions lack clear answers,  
so-called “truth governance”  
has already begun to erode society’s fundamental correction capacity.

## 第十一章 | 防范真相极权的制度性约束 Chapter 11 | Institutional Constraints Against Truth Authoritarianism

如果说前一章讨论的是风险如何产生，  
那么这一章讨论的，是风险如何被结构性阻断。

If the previous chapter examined **how risk emerges**,  
this chapter focuses on **how that risk can be structurally constrained**.

防范真相极权，并不依赖道德自觉，  
也不依赖技术完美，  
而依赖于一组明确、可执行、可逆的制度约束。

Preventing truth authoritarianism does not rely on moral restraint,  
nor on technical perfection,  
but on a set of **explicit, enforceable, and reversible institutional constraints**.

### 11.1 验证机构的权力边界 11.1 Power Boundaries of Verification Institutions

任何验证机构，只要存在，  
就必然拥有某种影响力。  
关键不在于“有没有权力”，  
而在于权力边界是否被清晰划定。

Any verification institution, once established,  
inevitably possesses influence.  
The question is not whether power exists,  
but whether **its boundaries are clearly defined**.

最低限度的边界应当包括：  
At minimum, these boundaries must include:

验证机构只能提供概率判断与风险提示  
不得将结论直接绑定为强制行动条件  
不得拥有自动触发惩罚或封禁的权限

Verification bodies may provide probabilistic assessments and risk signals  
Conclusions must not be bound directly to mandatory actions  
They must not possess automatic punitive or exclusionary authority

一旦验证结论与强制后果被直接绑定，  
验证机构就已经越过工具角色，  
进入了统治结构。

Once verification results are directly coupled with coercive outcomes,  
the institution has crossed from a tool  
into a governing structure.

## 11.2 多重验证而非唯一认证

### 11.2 Multiple Verification, Not Singular Certification

真相极权最稳定的结构基础，  
是唯一认证源。

The most stable structural foundation of truth authoritarianism  
is the **single source of certification**.

一旦社会被迫围绕一个“最终验证者”运转，  
所有错误都会被系统性放大，  
而所有责任都会被集中并随后消失。

Once society is forced to revolve around a “final verifier”，  
all errors become systemically amplified，  
and all responsibility becomes centralized—then erased.

因此，防范的核心原则之一是：  
Therefore, one core defensive principle is:

允许重叠、竞争、冲突的验证结论存在。

Allow overlapping, competing, and even conflicting verification outcomes to coexist.

多重验证并不意味着混乱，  
而意味着：  
Multiple verification does not mean chaos;  
it means:

没有任何单一结论具备终局地位  
错误可以被其他节点发现  
判断权不会被一次性抽空

No single conclusion holds final authority  
Errors can be detected by alternative nodes  
Judgement is not drained in a single stroke

## 11.3 判定结果与强制后果的分离

### 11.3 Separating Determination from Enforcement

在健康系统中，  
判断与强制执行必须被拆分。

In healthy systems,  
**judgement** and **coercive enforcement** must be separated.

验证机构可以：  
Verification institutions may:

提供风险评估  
标注不确定性  
给出参考建议

Provide risk assessments  
Annotate uncertainty  
Offer advisory recommendations

但不能：  
But they must not:

直接触发封禁、惩罚或定性裁决  
成为唯一合法行动依据  
在无申诉路径下生效

Directly trigger bans, penalties, or definitive rulings  
Serve as the sole legitimate basis for action  
Take effect without appeal pathways

强制后果必须由另一个责任主体承担，  
并且该主体必须可以被追责。

Coercive consequences must be imposed by a **separate accountable actor**,  
who can in turn be held responsible.

这是一条防止权力闭环的核心设计原则。

This is a core design principle  
for preventing closed power loops.

#### 11.4 不可质疑 ≠ 不可替代 11.4 Unquestionable Does Not Mean Irreplaceable

真相极权最危险的标志，  
不是“结论被强制执行”，  
而是：

The most dangerous marker of truth authoritarianism  
is not that conclusions are enforced,  
but that:

结论被视为“不可质疑”。  
Conclusions are treated as “beyond question”.

一旦某个验证机构的输出被制度性豁免于质疑，  
它就同时获得了两种权力：

Once an institution's output is institutionally exempted from questioning,

it gains two powers simultaneously:

不可被纠错  
不可被替代

Immunity from correction  
Immunity from replacement

这是系统失控前的最后一层防火墙被拆除的信号。

This signals the removal of the final firewall before systemic failure.

防范原则应当明确：

The defensive principle must be explicit:

所有验证结果都可以被质疑  
所有验证机构都可以被替代  
替代成本不应被人为抬高

All verification outcomes must be **questionable**  
All verification institutions must be **replaceable**  
Replacement costs must not be artificially inflated

只有在这种条件下，  
验证机构才能长期作为工具存在，  
而不会演化为权力本身。

Only under these conditions  
can verification institutions persist as tools  
rather than evolve into power structures.

第四部分 | 技术的正确位置：区块链的限域使用

## Part IV | The Proper Place of Technology: Constrained Use of Blockchain

第十二章 | 区块链的真实能力与误用风险

### Chapter 12 | The Real Capabilities and Misuse Risks of Blockchain

在 AI 伪造与真相治理的讨论中，  
区块链常常被当作一种\*\*“技术解药”\*\*提出。  
仿佛只要“上链”，  
真假、责任与信任问题就能一并解决。

In discussions of AI forgery and truth governance,  
blockchain is often proposed as a technological cure-all.  
As if once something is “on-chain”,  
truth, responsibility, and trust are automatically resolved.

这种期待，本身就是风险。

This expectation is itself a risk.

#### 12.1 区块链能解决什么

#### 12.1 What Blockchain Can Actually Solve

区块链并不是“真相机器”，  
但它确实具备几项非常明确、且边界清晰的能力。

Blockchain is not a “truth machine”,  
but it does possess several precise and well-bounded capabilities.

主要集中在三个方面：  
These mainly fall into three areas:

### 一、时间

区块链可以提供高度可信的时间顺序与存在性证明。  
它能回答的问题是：  
某个信息在某个时间点之前已经存在。

#### 1. Time

Blockchain can provide highly reliable temporal ordering and existence proofs.  
It answers the question:  
Was this information already present before a given point in time?

### 二、责任

通过不可篡改的记录，  
区块链可以帮助固定：  
是谁在什么时间，触发了什么行为。

#### 2. Responsibility

Through tamper-resistant records,  
blockchain can help fix:  
who triggered what action, and when.

### 三、版本

区块链可以清晰区分不同版本的内容、指令或状态，  
避免事后“回写历史”。

#### 3. Versioning

Blockchain can clearly distinguish different versions of content, instructions, or states,  
preventing post hoc “rewriting of history”.

在这三个维度上，  
区块链是证据强化工具，  
而不是裁决工具。

Across these dimensions,  
blockchain functions as an evidence-strengthening tool,  
not a decision-making authority.

## 12.2 区块链不能解决什么

### 12.2 What Blockchain Cannot Solve

区块链最危险的误用，  
来自于对其能力的概念性外推。

The most dangerous misuse of blockchain  
comes from **conceptual overextension** of its capabilities.

区块链不能解决：

Blockchain cannot solve:

内容是否真实

行为是否正当  
结论是否合理

Whether content is true  
Whether actions are legitimate  
Whether conclusions are reasonable

它只能记录“发生了什么”，  
而不能判断“是否应该发生”。

It can record what happened,  
but it cannot judge whether it should have happened.

任何试图用区块链来：  
Any attempt to use blockchain to:

固化某一版本为“最终真相”  
以技术形式消除质疑空间  
用不可篡改性替代责任讨论

Fix a single version as “final truth”  
Eliminate questioning through technical means  
Replace responsibility debate with immutability

都会直接滑向技术化的真相极权。  
will slide directly into technologized truth authoritarianism.

### 12.3 “链上即真相”的危险性 12.3 The Danger of “On-Chain Equals Truth”

“链上即真相”  
是区块链语境中最具诱惑力、也最具破坏性的口号之一。

“On-chain equals truth”  
is one of the most seductive—and most destructive—slogans in the blockchain discourse.

它的危险不在于技术错误，  
而在于责任消失。

Its danger lies not in technical incorrectness,  
but in the **disappearance of responsibility**.

一旦某个状态被宣称为：  
因为上链，所以不可质疑

Because it's on-chain, it's beyond question

那么：  
Then:

判断权被技术封存  
纠错机制被提前关闭  
人类责任被转移给系统设计

Judgement is sealed inside technology  
Correction mechanisms are shut down prematurely  
Human responsibility is shifted onto system design

这不是去中心化，  
而是去责任化。

This is not decentralization;  
it is de-responsibilization.

区块链一旦被用来冻结结论，  
它就不再是风险控制工具，  
而成为权力放大器。

Once blockchain is used to freeze conclusions,  
it ceases to be a risk-control tool  
and becomes a power amplifier.

### 第十三章 | 区块链在责任体系中的正确位置

## Chapter 13 | The Proper Role of Blockchain in Responsibility Architecture

如果说上一章的任务是拆除幻想，  
那么这一章的任务，是重新安放工具。

If the previous chapter dismantled illusions,  
this chapter repositions the tool.

区块链不是被否定，  
而是被限域。

Blockchain is not rejected,  
but **constrained**.

### 13.1 区块链作为证据层，而非裁决层

#### 13.1 Blockchain as an Evidence Layer, Not a Decision Layer

区块链在责任体系中的正确位置，  
应当被严格限定为：  
**证据层基础设施**。

The proper place of blockchain within responsibility systems  
must be strictly limited to:  
**evidence-layer infrastructure**.

它可以做的，是：  
What it can do is:

固化时间顺序  
固化行为记录  
固化版本演化

Fix temporal order  
Fix action records  
Fix version evolution

但它不应当做的，是：  
What it must not do is:

给出结论

触发惩罚

终止争议

Deliver conclusions

Trigger punishment

Terminate disputes

一旦区块链从“记录者”跃迁为“裁决者”，  
责任就会从人类系统中被抽离。

Once blockchain shifts from recorder to arbiter,  
responsibility is extracted from human systems.

这条界线必须被制度性写死，  
而不能依赖使用者善意。

This boundary must be **institutionally hard-coded**,  
not left to goodwill.

### 13.2 固化责任，而非固化真相

#### 13.2 Freezing Responsibility, Not Freezing Truth

区块链最有价值的用途，  
不是用来回答“什么是真的”，  
而是用来回答：

Blockchain's most valuable use  
is not answering "what is true",  
but answering:

在争议发生前，  
谁做了什么，  
以什么身份，  
在什么时间点。

Before a dispute arose,  
who did what,  
in what capacity,  
at what time.

换言之，  
区块链应当用于**锁定责任前态**，  
而不是**冻结结论后态**。

In other words,  
blockchain should lock **pre-dispute responsibility states**,  
not freeze **post-dispute conclusions**.

当区块链被用来固化“谁说了什么”“谁批准了什么”，  
它强化的是追责能力。

When blockchain fixes "who said what" and "who approved what",  
it strengthens accountability.

当它被用来固化“这就是真相”，  
它摧毁的是纠错能力。

When it freezes “this is the truth”,  
it destroys correction capacity.

### 13.3 用区块链约束权力，而不是加固权威

#### 13.3 Using Blockchain to Constrain Power, Not Reinforce Authority

一个反直觉但极其关键的原则是：  
区块链更适合用来约束强者，而不是证明强者正确。

A counterintuitive but crucial principle is:  
**blockchain is better at constraining power than validating it.**

正确的使用方向包括：

Proper uses include:

记录权威机构的决策过程  
固化平台下架、封禁、裁定的时间与理由  
防止事后“合理化叙事”的回写

Recording decision processes of authorities  
Fixing the timing and stated reasons for takedowns, bans, or rulings  
Preventing post hoc narrative rewriting

在这些场景中，  
区块链不是“真理背书”，  
而是权力制动器。

In these contexts,  
blockchain does not endorse truth,  
it acts as a power brake.

如果区块链被用来：  
If blockchain is used to:

提高权威不可质疑性  
降低替代与申诉可能性  
技术性封闭责任链

Increase unquestionability of authority  
Lower replaceability and appeal feasibility  
Technically seal responsibility chains

那么它就被用反了。  
Then it has been used in reverse.

### 第五部分 | 事故与结论：系统如何不失控

#### Part V | Incidents and Conclusions: How Systems Avoid Collapse

##### 第十四章 | 事故场景推演：伪造发生后，责任如何回溯

##### Chapter 14 | Incident Scenarios: How Responsibility Is Traced After Forgery Occurs

到这里，本文已经完成了责任结构的静态展开。  
但任何制度设计，只有在事故发生之后仍能运转，  
才具备现实意义。

At this point, the static architecture of responsibility has been laid out.  
But any institutional design only proves its value  
if it continues to function **after an incident occurs**.

本章不讨论“如何避免事故”。

事故在 AI 时代是必然事件。

本章只讨论一件事：

This chapter does not address how to prevent incidents.

In the AI era, incidents are **inevitable**.

This chapter addresses only one question:

当伪造已经发生，  
系统是否还能把责任找回来。

Once forgery has occurred,  
can the system still recover responsibility?

#### 14.1 责任链断裂的常见路径

#### 14.1 Common Paths of Responsibility Chain Failure

在真实事故中，责任并非“突然消失”，  
而是沿着可预测的路径被逐步削弱。

In real incidents, responsibility does not vanish suddenly;  
it is gradually eroded along predictable paths.

最常见的三种断裂方式是：

The three most common failure modes are:

第一种：责任模糊化  
参与者众多，但每一环都声称“只是执行”。

1. Responsibility Diffusion  
Many participants are involved, but each claims to be “only executing”.

第二种：技术遮蔽  
关键决策被描述为“系统行为”“算法结果”。

2. Technical Obfuscation  
Critical decisions are framed as “system behavior” or “algorithmic output”.

第三种：证据蒸发  
记录缺失、日志不完整、版本不可还原。

3. Evidence Evaporation  
Records are missing, logs incomplete, versions unrecoverable.

这三种路径并不制造伪造本身，  
它们制造的是：  
无法追责的伪造。

These paths do not create forgery itself;  
they create unaccountable forgery.

#### 14.2 谁先下场，谁后兜底

#### 14.2 Who Acts First, Who Provides Fallback

在事故处理中，  
最关键的不是“谁最终负责”，  
而是：

In incident response,  
the most critical issue is not “who is ultimately responsible”,  
but:

责任是否按照层级顺序被激活。

Whether responsibility is activated in the correct sequence.

一个不失控的系统，应当遵循以下顺序：  
A non-collapsing system should follow this sequence:

1.直接行为者先下场  
谁发布、谁执行、谁触发后果，谁必须首先回应。

1.Direct Actors Act First  
Those who published, executed, or triggered consequences respond first.

2.组织层提供流程兜底  
检查流程是否失效，而非急于寻找替罪者。

2.Organizations Provide Process Fallback  
Examine process failure rather than seeking scapegoats.

3.平台层处理放大后果  
降低扩散、保留证据、支持追责。

3.Platforms Address Amplification Effects  
Limit spread, preserve evidence, support accountability.

4.技术方配合回溯能力  
提供日志、接口与能力边界说明。

4.Technology Providers Support Traceability  
Provide logs, interfaces, and capability boundary explanations.

5.法律与监管最后介入  
当结构性逃责出现时，强制闭环。

5.Law and Regulation Intervene Last  
Enforce closure when structural evasion emerges.

顺序一旦被颠倒，  
事故就会迅速政治化、技术化或情绪化，  
而不再是责任问题。

Once this sequence is inverted,  
incidents quickly become politicized, technicized, or emotionalized,  
rather than resolved as responsibility issues.

#### 14.3 不可识别 ≠ 不可追责

#### 14.3 Unidentifiable Does Not Mean Unaccountable

AI时代的一个危险误解是：  
“如果无法确定真假，就无法追责。”

A dangerous misconception in the AI era is:  
**“If truth cannot be determined, accountability is impossible.”**

这是错误的。

This is false.

即便在无法确认内容真伪的情况下，  
以下事实通常仍然可以被确认：

Even when content authenticity cannot be confirmed,  
the following facts can usually still be established:

谁选择了发布  
谁允许了放大  
谁设计了流程  
谁关闭了纠错路径

Who chose to publish  
Who allowed amplification  
Who designed the process  
Who disabled correction paths

这些都是责任事实，  
而非真假事实。

These are **responsibility facts**,  
not **truth facts**.

只要系统仍能回溯这些事实，  
它就没有失控。

As long as a system can trace these facts,  
it has not collapsed.

## 第十五章 | 总体结论：AI时代如何维持可被信任的结构 Chapter 15 | Overall Conclusion: How to Sustain Trustable Structures in the AI Era

到这里，本文并未给出一个“终极方案”。  
这是刻意的。

At this point, this text offers no “ultimate solution”.  
This is intentional.

因为在AI时代，  
任何宣称“一劳永逸解决伪造问题”的方案，  
本身就是风险源。

Because in the AI era,  
any proposal claiming to “solve forgery once and for all”  
is itself a source of risk.

### 15.1 防伪造 ≠ 建立真相神权

## 15.1 Anti-Forgery Does Not Mean Building a Truth Priesthood

防范 AI 伪造的正当性，不来自“掌握真相”，  
而来自防止系统性失控。

The legitimacy of anti-forgery efforts does not stem from “possessing truth”,  
but from **preventing systemic collapse**.

Once anti-forgery is understood as:  
一旦防伪造被理解为：

由某个机构、系统或技术  
最终裁定什么可以被相信

A single institution, system, or technology  
determines what may ultimately be believed

那么问题就已经被从“风险管理”  
转化为“权力垄断”。

the problem has already shifted  
from risk management  
to power concentration.

历史反复证明：  
真相一旦被神圣化，责任就会消失在仪式之中。

History repeatedly shows:  
**once truth is sacralized, responsibility dissolves into ritual.**

## 15.2 技术只能辅助，责任必须有人承担

### 15.2 Technology Can Assist; Responsibility Must Be Borne by Humans

本文反复强调一个看似保守、实则激进的结论：

This text repeatedly advances a conclusion that appears conservative but is in fact radical:

技术不能承担责任，  
责任只能由人类系统承担。

Technology cannot bear responsibility;  
responsibility can only be borne by human systems.

AI、算法、区块链、验证系统，  
都只能作为工具层存在。

AI, algorithms, blockchain, and verification systems  
can only exist at the **tool layer**.

它们可以：  
They can:

提供信息  
降低成本  
提高速度

Provide information

Reduce cost  
Increase speed

但它们不能：  
But they cannot:

替代判断  
承担后果  
接受追责

Replace judgement  
Bear consequences  
Accept accountability

一旦责任被技术化，  
人类社会就会失去纠错能力。

Once responsibility is technologized,  
human society loses its capacity for correction.

**15.3 真正需要被保护的，不是“真相”，而是人类判断与追责机制本身**

**15.3 What Must Truly Be Protected Is Not “Truth”, But Human Judgement and Accountability Itself**

在高度伪造的环境中，  
“真相”不再是一个稳定对象，  
而是一个不断被逼近、修正与争议的过程。

In high-forgery environments,  
“truth” is no longer a stable object,  
but a process of continual approximation, revision, and dispute.

如果社会试图通过冻结结论来换取安全感，  
它得到的不会是秩序，  
而是：

If society attempts to trade frozen conclusions for security,  
it will not obtain order,  
but:

判断权的萎缩  
责任链的断裂  
系统性不可逆失控

The atrophy of judgement  
The rupture of responsibility chains  
Systemic, irreversible loss of control

真正需要被保护的，  
不是某一次判断的“正确性”，  
而是：

What truly needs protection  
is not the “correctness” of any single judgement,  
but:

判断可以继续发生

错误可以被纠正  
责任可以被追溯

The ability to keep judging  
The ability to correct errors  
The ability to trace responsibility

只有在这种结构下，  
社会才能在真假不稳的时代，  
依然保持可被信任。

Only under such structures  
can society remain trustable  
in an era where truth itself is unstable.

附录 | 大语言模型对人类认知结构的反向塑造

## Appendix | The Reverse Shaping of Human Cognitive Structures by Large Language Models

附录导言 | 当工具开始回写使用者

### Appendix Introduction | When Tools Begin to Rewrite Their Users

在正文中，本文刻意将讨论重心放在责任结构、制度设计与风险承压能力上，  
而没有深入展开一个同样重要、却更长期的问题：

In the main body, this text deliberately focused on responsibility structures, institutional design, and risk-bearing capacity,  
while leaving aside another issue that is equally important but unfolds over a longer horizon:

当大语言模型被广泛使用后，  
它们是否只是在“被人使用”，  
还是正在反向塑造人类的认知结构本身？

Once large language models are widely adopted,  
are they merely being “used by humans”,  
or are they actively reshaping human cognitive structures in return?

这个问题之所以被放在附录，  
不是因为它不重要，  
而是因为它不直接构成责任裁决的依据。

This question appears in the appendix  
not because it lacks importance,  
but because it **does not directly serve as a basis for responsibility attribution.**

它描述的是一种环境变化，  
而不是一种行为过错。

It describes an **environmental shift**,  
not a **behavioral fault**.

#### A.1 语言模型并非中性工具

##### A.1 Language Models Are Not Neutral Instruments

在人类历史中，语言工具从来不是中性的。  
文字、印刷、搜索引擎，都曾深刻改变人类的思维方式。

Throughout history, language tools have never been neutral.  
Writing, printing, and search engines all profoundly reshaped human thought.

大语言模型的不同之处在于：  
它们不只是**存储或检索语言**，  
而是在实时生成中，  
**持续向人类反馈“什么样的表达是合理的、连贯的、被接受的”。**

What distinguishes large language models is that  
they do not merely **store or retrieve language**,  
but continuously generate it,  
providing real-time feedback on **what counts as reasonable, coherent, and acceptable expression**.

这种反馈，  
并非通过命令完成，  
而是通过**概率分布**完成。

This feedback is not delivered through commands,  
but through **probability distributions**.

人类并不被“要求”接受某种说法，  
而是在反复使用中，  
**逐渐适应模型所偏好的表达结构。**

Humans are not instructed to adopt specific formulations;  
through repeated use,  
they gradually **adapt to the expression patterns favored by the model**.

## A.2 从“辅助表达”到“预塑判断路径”

### A.2 From Expression Assistance to Pre-Shaping Judgement Paths

在理想设想中，  
大语言模型只是帮助人类把已有想法表达得更清楚。

In the idealized view,  
large language models merely help humans express **pre-existing ideas more clearly**.

但在实际使用中，  
它们逐步承担了另一种功能：  
**提前组织思路本身。**

In practice, however,  
they increasingly perform another function:  
**pre-organizing thought itself.**

常见现象包括：  
Common phenomena include:

人类在尚未形成完整判断前，就请求模型给出“总结”“立场”  
问题被重写为模型更容易回答的形式  
思考过程被压缩为“提示 → 输出”

Humans request “summaries” or “positions” before forming their own judgements  
Questions are reframed into forms the model answers more easily  
Thought processes are compressed into “prompt → output”

在这一过程中，  
判断并非被剥夺，  
而是被提前定型。

In this process,  
judgement is not removed,  
but **pre-shaped**.

人类依然在“选择”，  
但可选空间，  
已经被模型输出的结构预先裁剪。

Humans still “choose”，  
but the choice space  
has already been **pre-trimmed** by model outputs.

### A.3 概率语言对确定性思维的侵蚀

#### A.3 How Probabilistic Language Erodes Deterministic Thinking

大语言模型并不追求“真”，  
而是追求在统计意义上的合理性。

Large language models do not pursue “truth”，  
but **statistical plausibility**.

这种特性在多数场景下是优势，  
但在认知层面，会产生一种微妙影响：

This property is advantageous in many contexts，  
but cognitively it produces a subtle effect:

不确定性被语言抚平，  
而非被明确标出。

Uncertainty is smoothed by language，  
rather than explicitly exposed.

模型擅长生成：  
Models excel at producing:

连贯但并不唯一的解释  
看似平衡却缺乏决断的表述  
风险被语义弱化的判断

Coherent but non-unique explanations  
Balanced-sounding yet indecisive formulations  
Judgements where risk is semantically softened

长期暴露于这种输出中，  
人类容易逐渐适应一种认知状态：  
“可说得通”替代了“必须判定”。

With prolonged exposure，  
humans may adapt to a cognitive state where  
“**it sounds reasonable**” replaces “**a decision must be made**.”

这并非错误，  
但它会改变判断的节奏与阈值。

This is not inherently wrong,  
but it alters the **tempo and threshold of judgement**.

#### A.4 判断外包的心理机制

#### A.4 The Psychological Mechanics of Outsourced Judgement

当大语言模型被稳定地置于认知流程中，  
一种并非强迫、却极其稳固的心理机制开始形成：  
**判断的外包化**。

When large language models become stably embedded in cognitive workflows,  
a non-coercive yet highly stable psychological mechanism emerges:  
**the outsourcing of judgement**.

这种外包并不表现为“我不再判断”，  
而是表现为一种更温和、也更难察觉的变化：

This outsourcing does not appear as “I no longer judge”,  
but as a subtler shift:

判断前先询问模型  
判断时依赖模型给出的框架  
判断后用模型输出作为自我确认

Consulting the model before judging  
Relying on the model’s framing during judgement  
Using the model’s output for post-hoc self-confirmation

从主观体验上看，  
这并不会削弱信心，  
反而会降低认知焦虑。

From the subjective perspective,  
this does not reduce confidence;  
it often **reduces cognitive anxiety**.

因为模型提供的，  
不是“你必须这样判断”，  
而是：  
“这样判断是合理的。”

What the model offers is not “you must judge this way”,  
but:  
**“judging this way is reasonable.”**

长期来看，这会产生一个结构性后果：  
判断逐渐从“责任行为”退化为“选项选择”。

Over time, this produces a structural consequence:  
**judgement degrades from a responsibility-bearing act into option selection.**

#### A.5 语言先行对责任感的稀释效应

## A.5 How Language-First Processing Dilutes Responsibility

在传统认知模式中，  
语言通常服务于判断之后：

In traditional cognition,  
language typically follows judgement:

我已经想清楚了，  
现在把它说出来。

I have decided;  
now I will articulate it.

而在大语言模型介入后，  
顺序开始被反转：

With large language models in the loop,  
this order begins to reverse:

先看到一种说法，  
再决定是否接受。

First encounter a formulation,  
then decide whether to accept it.

这一变化并不直接制造错误，  
但它会系统性地稀释责任感。

This shift does not directly create errors,  
but it systematically dilutes the sense of responsibility.

因为一旦语言先行，  
判断就容易被体验为：

Once language leads,  
judgement is experienced as:

对现成表达的采纳  
对既有立场的选择  
对“合理答案”的认领

Adoption of an existing formulation  
Selection among pre-formed positions  
Claiming a “reasonable answer”

而不再是：

Rather than:

在不确定中做出的承担后果的决定  
A decision made under uncertainty with consequences borne

这正是语言模型对认知结构的关键回写点：  
它并不替人做决定，  
却让决定看起来不那么像决定。

This is a critical cognitive rewrite:

the model does not make decisions for humans,  
but it makes decisions **feel less like decisions**.

#### A.6 为什么“跟不上”是结构结果，而非个人失败 A.6 Why “Falling Behind” Is Structural, Not Personal Failure

在面对大语言模型时，  
许多人的直觉反应是：  
“是不是我不够努力、不够聪明、不够适应？”

When confronting large language models,  
a common intuitive reaction is:  
**“Am I not trying hard enough, not smart enough, not adaptable enough?”**

这种自责是可以理解的，  
但在结构层面是错误的。

This self-blame is understandable,  
but structurally incorrect.

因为问题不在于个体速度，  
而在于认知环境发生了跃迁。

The issue is not individual speed,  
but a **phase change in the cognitive environment**.

大语言模型的特点在于：  
The defining traits of large language models are:

高速  
连贯  
低摩擦  
持续可用

High speed  
Coherence  
Low friction  
Continuous availability

而人类判断的特点在于：  
Human judgement, by contrast, is characterized by:

需要停顿  
需要犹豫  
需要承担  
需要恢复

Requires pauses  
Requires hesitation  
Requires bearing consequences  
Requires recovery

当两者被放在同一工作流中时，  
“跟不上”不是能力问题，  
而是节奏失配。

When the two are placed in the same workflow,  
“falling behind” is not a capability problem,  
but a **tempo mismatch**.

AI 是好东西，  
但我们的制度、责任与纠错机制，正在系统性地跟不上它。

AI is a good thing,  
but our institutions, responsibilities, and correction mechanisms are structurally falling behind it.

不是因为人类退化了，  
而是因为判断这种行为，本就不该被无限加速。

Not because humans have degraded,  
but because **judgement was never meant to be infinitely accelerated**.

A.7 附录结语 | 认知被塑造，并不意味着责任可以消失

#### A.7 Appendix Closing | Being Shaped Does Not Absolve Responsibility

本附录的目的，  
并不是为任何责任失效提供心理学借口。

The purpose of this appendix  
is not to provide psychological excuses for responsibility failure.

恰恰相反，  
它试图说明一件更不舒服、但更重要的事实：

On the contrary,  
it highlights a more uncomfortable but crucial fact:

正因为认知正在被环境持续塑造，  
责任结构才必须被更清晰地外置与制度化。

Precisely because cognition is being continuously shaped by the environment,  
responsibility structures must be **more explicitly externalized and institutionalized**.

当人类判断变得更容易被预塑、被引导、被安抚，  
仅靠“个人自觉”已经不足以兜底。

As human judgement becomes more pre-shaped, guided, and soothed,  
**personal vigilance alone is no longer sufficient**.

这也是为什么正文始终回避“提升个人识别能力”这种叙事，  
而坚持讨论：

This is why the main text avoids narratives of “improving individual detection ability”，  
and instead insists on discussing:

责任分层  
流程设计  
兜底机制  
可追责性

Responsibility layering

Process design  
Fallback mechanisms  
Accountability

认知会被技术改变，  
这是历史常态；  
但责任如果被一并溶解，  
系统就会失控。

Cognition will be changed by technology—  
that is historical normalcy.  
If responsibility dissolves alongside it,  
systems collapse.

## 反馈与建议

欢迎对本文提出反馈、修正建议或结构性质疑。

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## Feedback & Suggestions

Feedback, corrections, or structural critiques are welcome.

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